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     (FILE 'HOME' ENTERED AT 14:10:41 ON 12 MAY 2003)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 14:11:03 ON 12 MAY 2003
L1         52666 S DIISOCYANATE
L2         71695 S "PEG"
L3           486 S L1 AND L2
L4         34024 S HYDROGEL?
L5            34 S L3 AND L4
L6            25 DUP REM L5 (9 DUPLICATES REMOVED)
L7        141828 S DISMUTASE?
L8             0 S L6 AND L7
L9             3 S POPRPHYRIN?
L10            0 S L6 AND L9
                 E ETTNER N/AU
L11           26 S E3
L12            0 S L3 AND L11
                 E SCHINK M/AU
L13           37 S E3
L14            0 S L3 AND L13
                 E SCHREIBER J/AU
L15          903 S E3
L16            0 S L3 AND L15
                 E MEIER W/AU
L17         1293 S E3
L18            0 S L3 AND L17
                 E SAUER M/AU
L19          618 S E3
L20            0 S L3   AND L19
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NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
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NEWS 17	Dec 17	TOXCENTER enhanced with additional content
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NEWS 20	Feb 13	CANCERLIT is no longer being updated
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NEWS 22	Feb 24	PCTGEN now available on STN
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NEWS 28	Mar 20	EVENTLINE will be removed from STN
NEWS 29	Mar 24	PATDPAFULL now available on STN
NEWS 30	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 31	Apr 11	Display formats in DGENE enhanced
NEWS 32	Apr 14	MEDLINE Reload
NEWS 33	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 34	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 35	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 36	Apr 28	RDISCLOSURE now available on STN
NEWS 37	May 05	Pharmacokinetic information and systematic chemical names added to PHAR

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=> s diisocyanate
L1       52666 DIISOCYANATE

=> s "peg"
L2       71695 "PEG"

=> s l1 and l2
```

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L3         486 L1 AND L2

=> s hydrogel?
L4       34024 HYDROGEL?

=> s l3 and l4
L5          34 L3 AND L4

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6          25 DUP REM L5 (9 DUPLICATES REMOVED)

=> s dismutase?
L7      141828 DISMUTASE?

=> s l6 and l7
L8           0 L6 AND L7

=> s poprphyrin?
L9           3 POPRPHYRIN?

=> s l6 and l9
L10          0 L6 AND L9

=> d l6 1-25 ibib ab

L6   ANSWER 1 OF 25  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:        2002:10563  HCAPLUS
DOCUMENT NUMBER:         136:74711
TITLE:                   Polyurethane hydrogel contact lens
INVENTOR(S):             Carlson, Gregory; Blair, Edgar Alan; Wachtel, Peter;
                         Quinn, Michael H.; Wallach, Joshua
PATENT ASSIGNEE(S):      Wesley Jessen Corporation, USA; Novartis A.-G.
SOURCE:                  PCT Int. Appl., 40 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2002000749      A2   20020103       WO 2001-EP7160   20010625
     WO 2002000749      A3   20020516
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     EP 1299444         A2   20030409       EP 2001-945309   20010625
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     US 2002032297      A1   20020314       US 2001-892345   20010626
     NO 2002006062      A    20030203       NO 2002-6062     20021217
PRIORITY APPLN. INFO.:                   US 2000-214649P  P  20000626
                                         WO 2001-EP7160   W  20010625
AB   A prepolymer is prepd. by reacting a mixt. contg. (a) at least one
     multifunctional compd., (b) at least one diisocyanate, and (c)
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at least one diol. The diol has a wt. av. mol. wt. of at most 6000. The prepolymer, when reacted with an excess of water, forms a **hydrogel** polymer. The mixt. of the prepolymer and water may be reaction molded, and used to form a contact lens. A prepolymer was prepd. from **PEG** , isophorone **diisocyanate**, and Luxate HT2000, and the prepolymer mixed with water to give a **hydrogel** placed in a contact lens mold.

L6 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:737959 HCAPLUS
DOCUMENT NUMBER: 137:385169
TITLE: Amphiphilic **Hydrogels** Constructed by Poly(ethylene glycol) and Shape-Persistent Dendritic Fragments
AUTHOR(S): Gitsov, Ivan; Zhu, Chao
CORPORATE SOURCE: Michael M. Szwarc Polymer Research Institute and Department of Chemistry, College of Environmental Science and Forestry, State University of New York, Syracuse, NY, 13210, USA
SOURCE: Macromolecules (2002), 35(22), 8418-8427
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This paper describes the synthesis of amphiphilic **hydrogels** with highly shape persistent cross-link junctions using linear blocks, such as poly(ethylene glycol), **PEG**, and perfectly branched (dendritic) macromols. The synthetic strategy is based on the reaction of **PEG** with isocyanate or epoxy end groups as the hydrophilic component and hydrophobic dendritic poly(benzyl ethers) with amino groups at the periphery. It is found that the efficiency of the crosslinking reaction depends on the nature of chem. reaction used and the stoichiometric ratio of the two building blocks. The swelling of the gels formed is affected by the relative **PEG** content and by the polarity of the medium and the temp., and it varies between 1.2 and 16.7 (by wt.). The influence of various factors on the degree of crystallinity and phase segregation is also discussed.
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 25 SCISEARCH COPYRIGHT 2003 THOMSON ISI
ACCESSION NUMBER: 2002:401032 SCISEARCH
THE GENUINE ARTICLE: 549AD
TITLE: Polyethylene glycol **diisocyanate** decreases platelet deposition after balloon injury of rabbit femoral arteries
AUTHOR: Burchenal J E B; Deible C R; Deglau T E; Russell A J; Beckman E J; Wagner W R (Reprint)
CORPORATE SOURCE: Univ Pittsburgh, Dept Surg, 328 Scaife Hall, Pittsburgh, PA 15261 USA (Reprint); Univ Pittsburgh, Dept Surg, Pittsburgh, PA 15261 USA; Univ Pittsburgh, Dept Med, Div Cardiol, Pittsburgh, PA 15261 USA; Univ Pittsburgh, Dept Bioengn, Pittsburgh, PA 15261 USA; Univ Pittsburgh, Dept Chem Engn, Pittsburgh, PA 15261 USA
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF THROMBOSIS AND THROMBOLYSIS, (FEB 2002) Vol. 13, No. 1, pp. 27-33.
Publisher: KLUWER ACADEMIC PUBL, VAN GODEWIJCKSTRAAT 30, 3311 GZ DORDRECHT, NETHERLANDS.
ISSN: 0929-5305.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English

REFERENCE COUNT: 19

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Background: Platelet deposition after angioplasty remains problematic and may contribute to intimal hyperplasia and restenosis. We proposed that polyethylene glycol **diisocyanate** (**PEG**-DISO), a polymer that rapidly forms covalent linkages with amine residues on proteins, could mask thrombogenic vascular wall proteins from platelets, thereby abrogating acute platelet deposition.

Methods and Results: To test this hypothesis, we isolated the femoral arteries of 10 New Zealand White rabbits and injured them with 3 passes of a 2F Fogarty catheter which was inserted through a distal arteriotomy. Immediately after balloon injury, (1)11indium-labeled autologous platelets were infused peripherally and the injured femoral arteries were randomly treated for 1 minute with a **PEG**-DISO solution in one artery and a control solution of the phosphate buffered saline vehicle in the contralateral artery. Following treatment, reflow was initiated. The vessels were harvested after 1 hour and radioactivity was quantified in a gamma counter. Platelet counts were standardized by weight and expressed as platelets/mg (mean +/- SEM). Platelet deposition onto arteries treated with **PEG**-DISO was (1.2 +/- 0.5) x 10(6) platelets/mg compared to (5.6 +/- 4.2) x 10(6) platelets/mg onto the contralateral control arteries treated with vehicle ($P < 0.005$). Scanning electron micrographs of the injured vessel segment confirmed qualitatively less platelet deposition on the treated segments than on the control segments.

Conclusion: Treatment with **PEG**-DISO significantly inhibited platelet deposition after vascular injury. These data support the hypothesis that treatment with **PEG**-DISO masks surface adhesive proteins from platelet receptors in vivo and that the resulting molecular barrier significantly reduces platelet deposition onto the damaged vessel wall for at least one hour. The formation of a molecularly thin barrier to platelet deposition may thus be a novel and effective treatment to abrogate acute intravascular thrombosis and may have value in the treatment of restenosis.

L6 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:137319 HCAPLUS
DOCUMENT NUMBER: 134:180053
TITLE: Self-sealing materials and devices comprising same
INVENTOR(S): Yao, Li
PATENT ASSIGNEE(S): Porex Technologies Corporation, USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012746	A1	20010222	WO 2000-US20289	20000726
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002179527	A1	20021205	US 2002-112753	20020402

PRIORITY APPLN. INFO.: US 1999-375383 A 19990817

AB This invention relates to gas- or liq.-permeable materials that seal when

exposed to water and methods of making such materials. In general, materials of this invention comprise a **hydrogel** adhered to pore walls of a porous substrate. The invention further relates to devices comprising self-sealing materials including, but not limited to, pipet tips, containers, i.v. liq. delivery systems, and syringe caps. Thus, a **hydrogel** for prepn. of self-sealing material with a porous UHMWPE was prepd. by the polymn. of 4,4'-diphenylmethane **diisocyanate**, **PEG** 1000, and butanediol.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:731317 HCAPLUS
DOCUMENT NUMBER: 135:262287
TITLE: Polymer-based **hydrogel** wound dressings
INVENTOR(S): McGhee, Diane; Huang, Yeong Hua; Earhart, Stephen B.; Fiehler, William R.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 7 pp., Cont.-in-part of U.S. 6,180,132.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001026810	A1	20011004	US 2001-772801	20010130
US 6180132	B1	20010130	US 1998-156547	19980917
WO 2002060501	A2	20020808	WO 2002-US2691	20020130
WO 2002060501	A3	20030306		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1998-156547 A2 19980917
US 1997-59412P P 19970919
US 2001-772801 A 20010130

AB A **hydrogel** wound dressing which is highly absorptive, contours to a wound site, and maintains the wound in a moist state to promote healing. The **hydrogel** wound dressing may also contain additives to prevent bacterial and fungal infections and to control wound odor. A **hydrogel** (polyoxyalkylene-polyurethane-polyurea) was prepd. from isophorone **diisocyanate** and **PEG** and propylene glycol and polyether diamine. This was mixed with silver diazine to give a **hydrogel** wound dressing.

L6 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:65301 HCAPLUS
DOCUMENT NUMBER: 132:113133
TITLE: Slippery, tenaciously adhering hydrophilic polyurethane **hydrogel** coatings, coated polymer substrate materials, and coated medical devices
INVENTOR(S): Hostettler, Fritz; Rhum, David; Forman, Michael R.; Helmus, Michael N.; Ding, Ni

PATENT ASSIGNEE(S): Schneider (USA) Inc., USA
SOURCE: U.S., 22 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6017577	A	20000125	US 1995-382478	19950201
US 6030656	A	20000229	US 1998-126375	19980324
US 6080488	A	20000627	US 1998-126376	19980324
US 6040058	A	20000321	US 1998-126374	19980827
US 6265016	B1	20010724	US 2000-531925	20000321

PRIORITY APPLN. INFO.: US 1995-382478 A3 19950201
US 1998-126374 A1 19980827

AB A process for the prepn. of slippery, hydrophilic polyurethane **hydrogel** coating compns., and materials composed of a polymeric plastic or rubber substrate or a metal substrate with a coating of a slippery, hydrophilic polyurethane **hydrogel** thereon, such that the coating compn. tenaciously adheres to the substrate, are disclosed. The coating compns. and coated materials are non-toxic and biocompatible, and are ideally suited for use on medical devices, particularly, catheters, catheter balloons and stents. The coating compns., coated materials and coated devices demonstrate low coeffs. of friction in contact with body fluids, esp. blood, as well as a high degree of wear permanence over prolonged use of the device. The **hydrogel** coating compns. are capable of being dried to facilitate storage of the devices to which they have been applied, and can be instantly reactivated for later use by exposure to water.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:194369 HCAPLUS
DOCUMENT NUMBER: 136:200992
TITLE: Process for producing functional polyurethane **hydrogel**
INVENTOR(S): Lee, Jae Seok; Lee, Jin Hui
PATENT ASSIGNEE(S): Kwangju Institute of Science and Technology, S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2000000603	A	20000115	KR 1998-20286	19980601

PRIORITY APPLN. INFO.: KR 1998-20286 19980601

AB A process for producing a functional polyurethane **hydrogel** which improves bio compatibility and excellent mech., phys. properties, thus can be widely applied for medical materials is provided. The process is characterized by simultaneously forming urethane bonding and allophanate by thermal crosslinking of a polyol and a **diisocyanate** at a high temp. of 80-100.degree.C. The polyol is **PEG** (polyethylene glycol) having a mol. wt. of 3400 or 4600, and the **diisocyanate** is methylenebisphenyl isocyanate having high water-swelling power and LCST (lower crit. soln. temp.). The obtained functional polyurethane **hydrogel** has reversible water-swelling power in accordance with

temp. and is sensitive to thermal stimulus.

L6 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:220016 HCAPLUS
DOCUMENT NUMBER: 130:242351
TITLE: **Hydrogel** wound dressing and methods of making and using it
INVENTOR(S): Huang, Yeong Hua; Earhart, Stephen B.; Fiehler, William R.
PATENT ASSIGNEE(S): Tyco Group S.a.r.l., Luxembourg
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9913923	A2	19990325	WO 1998-EP5933	19980917
WO 9913923	A3	20011220		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9916640	A1	19990405	AU 1999-16640	19980917

PRIORITY APPLN. INFO.: US 1997-59412P P 19970918
WO 1998-EP5933 W 19980917

AB A transparent, bubble-free, nonadhesive, insol. **hydrogel** dressing for draining wounds which is highly absorptive, contours to a wound side, and maintains the wound in a moist state to promote healing thereof comprises a 3-dimensional crosslinked polyurethane/polyurea **hydrogel** prepd. from polyurethane prepolymer,. The dressing absorbs moisture and wound exudate up to 70-99% of its total wt., allows for easy removal with no trauma to the wound, protects the wound from contamination, minimizes wound odor, and can be sterilized, e.g. by .gamma.-irradn. The prepolymer is preferably capped with an aliph. polyisocyanate which gelates in 15-90 min on reaction with an alc., glycol, or polyalkylene glycol, H2O, and a polyether-diamine accelerator/chain modifier. Thus, an isophorone **diisocyanate** -based prepolymer 10 was mixed with **PEG** 10.0, deionized H2O 30.0, propylene glycol 10.0, and polyether-diamine 0.5 g and the mixt. was placed in a mold; gelation occurred within 90 min at room temp. and was allowed to proceed to completion overnight.

L6 ANSWER 9 OF 25 SCISEARCH COPYRIGHT 2003 THOMSON ISIDUPLICATE 1
ACCESSION NUMBER: 1999:588855 SCISEARCH
THE GENUINE ARTICLE: 218ZJ
TITLE: UV-curable poly(ethylene glycol)-based polyurethane acrylate **hydrogel**
AUTHOR: Kim B K (Reprint); Paik S H
CORPORATE SOURCE: PUSAN NATL UNIV, DEPT POLYMER SCI & ENGN, PUSAN 609735, SOUTH KOREA (Reprint); PUSAN NATL UNIV, IND TECHNOL RES INST, PUSAN 609735, SOUTH KOREA
COUNTRY OF AUTHOR: SOUTH KOREA
SOURCE: JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, (1 AUG 1999) Vol. 37, No. 15, pp. 2703-2709.
Publisher: JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK,

NY 10158-0012.
ISSN: 0887-624X.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: PHYS
LANGUAGE: English
REFERENCE COUNT: 22
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Poly(ethylene glycol) (**PEG**) with molecular weight (M-n) of 1000, 2000, 3000, and 4000 g/mol, four types of **diisocyanate** [hexamethylene **diisocyanate** (HDI), 4,4'-dicyclohexylmethane **diisocyanate** (H12MDI), isophorone **diisocyanate** (IPDI), and toluene **diisocyanate** (TDI)], two types of comonomers [acrylamide (AAm) and acrylic acid (AAc)] that comprised up to 60% of the total solid were used to prepare UV-curable **PEG**-based polyurethane (PU) acrylate **hydrogel**. The gels were evaluated in terms of mechanical properties, water content as a function of immersion time and pH, and X-ray diffraction profiles of dry and swollen films. (C) 1999 John Wiley & Sons, Inc.

L6 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:212366 HCAPLUS
DOCUMENT NUMBER: 131:63320
TITLE: Structural phenomena in **hydrogel**-drug systems
AUTHOR(S): Shekunov, B. Yu.; Taylor, P.; Grossmann, J. G.
CORPORATE SOURCE: School of Pharmacy, Postgraduate Studies in Pharmaceutical Technology, Drug Delivery Group, University of Bradford, Bradford, BD7 1DP, UK
SOURCE: Journal of Crystal Growth (1999), 198/199(Pt. 2), 1335-1339
CODEN: JCRGAE; ISSN: 0022-0248
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Crystn. and structural transition in a crosslinked **PEG** 4000 polymer were investigated as functions of water content and concn. of model drugs (acetaminophen and caffeine) using small angle x-ray scattering and wide angle x-ray scattering techniques. In the hydrated state (300 wt% of water), gel retains an ordering with characteristic spacing of 80.ANG.. With a water concn. of about 20%, this structure undergoes transition into lamellae with long spacing of 200.ANG. and then into semi-cryst. polymer matrix when water content is below 5%. This transition is assocd. with different type of phase sepns., first, between cryst. and amorphous PEO domains in the dry polymer and, second, between water and hydrophobic crosslinked regions in the swollen gel. Because of a specific hydrogen bonding, acetaminophen forms a mol. complex with the **PEG**, a drug concn. as small as 1% resulting in a significant increase of the long spacing and decrease of crystallinity of the polymer. Caffeine ppts. in the form of cryst. particles and also reduces the crystallinity of the polymer matrix.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 25 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 1998350551 MEDLINE
DOCUMENT NUMBER: 98350551 PubMed ID: 9685934
TITLE: **Hydrogels** of poly(ethylene glycol): mechanical characterization and release of a model drug.
AUTHOR: Iza M; Stoianovici G; Viora L; Grossiord J L; Couarraze G
CORPORATE SOURCE: Laboratoire de Physique Pharmaceutique, URA CNRS 1218, Faculte de Pharmacie, Universite Paris-Sud, Chatenay-Malabry, France.. mustapha.iza@phypha.u-psud.fr

SOURCE: JOURNAL OF CONTROLLED RELEASE, (1998 Mar 2) 52 (1-2) 41-51.
Journal code: 8607908. ISSN: 0168-3659.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199808
ENTRY DATE: Entered STN: 19980820
Last Updated on STN: 19980820
Entered Medline: 19980813

AB Thermosensitive polymer networks were synthesized from poly(ethylene glycol), hexamethylene **diisocyanate** and 1,2,6-hexanetriol in stoichiometric proportions. By varying the amount of 1,2,6-hexanetriol and the molar mass of the poly(ethylene glycol), a wide range of networks with different crosslinking densities was prepared. The networks obtained were characterized by the temperature dependence of their degree of equilibrium swelling in water and by their Young's moduli. For each network, the molecular weight between crosslinks was estimated. The structure of the **hydrogels** was analysed with respect to scaling laws, and it was found that the results obtained with **PEG** 1500 and **PEG** 6000 **hydrogels** are in agreement with theoretical predictions, whereas those obtained with **PEG** 400 **hydrogels** are in disagreement. The release properties of **PEG hydrogels** were studied by the determination of the diffusion coefficient for acebutolol chlorhydrate and by an analysis of the effect of temperature on these coefficients. Finally, these release properties were correlated with the swelling and structural properties of the **hydrogels**.

L6 ANSWER 12 OF 25 SCISEARCH COPYRIGHT 2003 THOMSON ISI
ACCESSION NUMBER: 95:112616 SCISEARCH
THE GENUINE ARTICLE: QE395
TITLE: RELEASE OF RADIOACTIVE STEROIDS FROM DRIED DOWN **HYDROGELS** OF POLYURETHANE NETWORKS
AUTHOR: ZULFIQAR M; QUDDOS A; ZULFIQAR S (Reprint)
CORPORATE SOURCE: QUAID I AZAM UNIV, DEPT CHEM, ISLAMABAD 44000, PAKISTAN (Reprint); QUAID I AZAM UNIV, DEPT CHEM, ISLAMABAD 44000, PAKISTAN
COUNTRY OF AUTHOR: PAKISTAN
SOURCE: JOURNAL OF APPLIED POLYMER SCIENCE, (28 FEB 1995) Vol. 55, No. 9, pp. 1301-1305.
ISSN: 0021-8995.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: PHYS; ENGI
LANGUAGE: ENGLISH
REFERENCE COUNT: 15
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The polyurethane networks were based on poly(ethylene glycol) 6000 (**PEG**), crosslinked with 1,1,1-tris(hydroxy methyl)ethane and with the stoichiometric equivalence of hexamethylene **diisocyanate**. Radioactive steroids were incorporated into cylindrical **hydrogels** over a wide range of compositions. The release profiles were drawn from dried down **hydrogel** of polyurethane networks. The scintillation counter was used for the release study of steroids after different intervals. In vivo, the loaded **hydrogels** were implanted into rats. The results for constant release studies were recorded. (C) 1995 John Wiley and Sons, Inc.

L6 ANSWER 13 OF 25 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 3
ACCESSION NUMBER: 94138450 EMBASE
DOCUMENT NUMBER: 1994138450
TITLE: Poly(ether urethane) oligomers as poly(HEMA) crosslinkers.

AUTHOR: Aronhime M.; Einstein K.; Cohn D.
CORPORATE SOURCE: Casali Institute of Applied Chem, The Hebrew University of Jerusalem,91904 Jerusalem, Israel
SOURCE: Clinical Materials, (1994) 15/3 (161-167).
ISSN: 0267-6605 CODEN: CLNME2
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
LANGUAGE: English
SUMMARY LANGUAGE: English

AB **Hydrogels** with improved mechanical properties and acceptable levels of water absorption were developed by crosslinking poly(hydroxyethyl methacrylate), P(HEMA), with isocyanate-terminated poly(ether glycols). The crosslinking agents consisted of poly(ethylene glycol) (**PEG**) and poly(tetramethylene glycol) (PTMG) chains end-capped with hexamethylene **diisocyanate** (HDI) **PEG** of molecular weight 600 and PTMG of molecular weight 650 were used. P(HEMA) was reacted with either of the two crosslinkers alone, at concentrations of 5-30%, or with various combinations of the two crosslinkers, at total crosslinker content of 10-30%. Generally, as the level of the **PEG**-containing crosslinker increased, the mechanical properties of the **hydrogel**, both dry and wet, decreased, whereas the equilibrium water content increased. **Hydrogels** with a good balance between mechanical properties and water content could be obtained by adjusting the amount and composition of the crosslinking agent.

L6 ANSWER 14 OF 25 SCISEARCH COPYRIGHT 2003 THOMSON ISIDUPLICATE 4
ACCESSION NUMBER: 94:1413 SCISEARCH
THE GENUINE ARTICLE: ML952
TITLE: CLEAR NONIONIC POLYURETHANE **HYDROGELS** FOR BIOMEDICAL APPLICATIONS
AUTHOR: HASCHKE E; SENDIJAREVIC V; WONG S; FRISCH K C (Reprint); HILL G
CORPORATE SOURCE: UNIV DETROIT MERCY, POLYMER TECHNOL INC, DETROIT, MI, 48219; JOHNSON & JOHNSON VIS PROD INC, VISTAKON, JACKSONVILLE, FL, 32216
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF ELASTOMERS AND PLASTICS, (JAN 1994) Vol. 26, No. 1, pp. 41-57.
ISSN: 0095-2443.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: ENGI
LANGUAGE: ENGLISH
REFERENCE COUNT: 10

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Clear nonionic polyurethane **hydrogels** having a broad range of mechanical properties and degrees of swelling were prepared by both bulk (compression molding) and solution polymerization processes. **Hydrogels** containing 70% water were also prepared which had an elongation of 1150% and a tensile strength of 280 kPa. The effects of the chemical structure, molecular weight, and functionality of polyether polyols and type of **diisocyanate** on **hydrogel** properties were studied. In addition, the type and concentration of crosslinker, and concentration of ethylene glycol, which was used as chain extender were investigated. In order to achieve transparency in the **hydrogels**, it was determined that poly(oxypropylene) glycols (PPGs) should be present in the system to disrupt the crystallinity of the poly(oxyethylene) glycol (**PEG**) soft segments. The **PEG** segments of the network which contain the hydrophilic moiety are responsible for the absorption of water. However, in addition to the

concentration of oxyethylene, the degree of swelling of the **hydrogels** was also determined by measuring the elasticity of the polymer network. The elasticity of the polymer network is determined by the molecular weight between crosslinks (crosslink density) and the concentration of hard segments in the network. The concentration of hard segments was controlled by the concentration of chain extender. The crosslink density was controlled by the diol/triol ratio and the respective molecular weight of each component.

L6 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:227059 HCAPLUS
DOCUMENT NUMBER: 120:227059
TITLE: Wound dressing gauze
INVENTOR(S): Cartmell, James V.; Wolf, Michael L.; Sturtevant, Wayne R.
PATENT ASSIGNEE(S): NDM Acquisition Corp., USA
SOURCE: Can. Pat. Appl., 23 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2080497	AA	19931003	CA 1992-2080497	19921014
CA 2080497	C	19971223		
AU 9226061	A1	19931007	AU 1992-26061	19920930
AU 648438	B2	19940421		
ZA 9207575	A	19930510	ZA 1992-7575	19921001
JP 06285145	A2	19941011	JP 1992-313170	19921124
EP 567704	A1	19931103	EP 1992-311327	19921211
EP 567704	B1	19970226		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
AT 149086	E	19970315	AT 1992-311327	19921211

PRIORITY APPLN. INFO.: US 1992-862456 19920402
AB The present invention provides a wound dressing in the form of a gauze or similar absorbent material having dehydrated **hydrogel** material, e.g., polyhydric alcs., impregnated therein for absorbing wound exudate. The wound dressing is capable of absorbing large amts. of wound exudate without inhibiting the healing of the wound with which it is in contact since it does not adhere to such a wound (no data).

L6 ANSWER 16 OF 25 SCISEARCH COPYRIGHT 2003 THOMSON ISIDUPLICATE 5
ACCESSION NUMBER: 93:531240 SCISEARCH
THE GENUINE ARTICLE: LU073
TITLE: POLYURETHANE NETWORKS BASED ON POLY(ETHYLENE OXIDE)
AUTHOR: ZULFIQAR M (Reprint); QUDDOS A; ZULFIQAR S
CORPORATE SOURCE: QUAID I AZAM UNIV, DEPT CHEM, ISLAMABAD 44000, PAKISTAN (Reprint)
COUNTRY OF AUTHOR: PAKISTAN
SOURCE: JOURNAL OF APPLIED POLYMER SCIENCE, (20 SEP 1993) Vol. 49, No. 12, pp. 2055-2063.
ISSN: 0021-8995.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: PHYS; ENGI
LANGUAGE: ENGLISH
REFERENCE COUNT: 26
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB A wide range of infinite urethane polymer networks were prepared from poly(ethylene glycol) (**PEG**) and hexamethylene **diisocyanate** (HMDI) using 1,1,1-tris(hydroxymethyl)ethane (THME)

as the cross-linking agent. The influence of temperature, cross-linking, and crystallinity on the swelling character of the **hydrogel** has been discussed. The toxicity of the network polymer by intravaginal implants in rats was studied. Implantation of the polymer did not result in alteration in behavior and feed intake or any pathological changes in the tissue. Vaginal fluids from the polymer-implanted rats or the polymer extract when inoculated on a listeria monocytogene culture plate were unable to inhibit the bacterial growth. (C) 1993 John Wiley & Sons, Inc.

L6 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:658225 HCAPLUS
DOCUMENT NUMBER: 117:258225
TITLE: Controlled-release pharmaceutical compositions
INVENTOR(S): Robertson, Steven
PATENT ASSIGNEE(S): British Technology Group PLC, UK
SOURCE: Brit. UK Pat. Appl., 19 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2252043	A1	19920729	GB 1992-1355	19920122
GB 2252043	B2	19941012		
US 5352455	A	19941004	US 1992-821946	19920117
CA 2059855	AA	19920724	CA 1992-2059855	19920122
CA 2059855	C	20020305		
FR 2671726	A3	19920724	FR 1992-685	19920122
FR 2671726	B3	19921218		
JP 04295418	A2	19921020	JP 1992-10320	19920123
JP 3296579	B2	20020702		
ZA 9200477	A	19921028	ZA 1992-477	19920123

PRIORITY APPLN. INFO.: GB 1991-1502 A 19910123
AB A controlled-release pharmaceutical compn. comprises a water-swellable polyurethane carrier and a drug, having crenellated surface to improve the release properties. A cryst. **hydrogel** was produced by copolymn. of one part of **PEG** 4000, one part of hexanetriol, and 2.5 parts of hexamethylene **diisocyanate**. Solid polymer was modeled and immersed in an aq. soln. contg. 30 g/L morphine sulfate. The swollen polymer was removed and dried. The morphine release properties were examd.

L6 ANSWER 18 OF 25 SCISEARCH COPYRIGHT 2003 THOMSON ISI
ACCESSION NUMBER: 92:576758 SCISEARCH
THE GENUINE ARTICLE: JQ409
TITLE: POLY(URETHANE)-CROSS-LINKED POLY(HEMA) **HYDROGELS**
AUTHOR: COHN D (Reprint); ARONHIME M; ABDO B
CORPORATE SOURCE: HEBREW UNIV JERUSALEM, CASALI INST APPL CHEM, IL-91904 JERUSALEM, ISRAEL (Reprint)
COUNTRY OF AUTHOR: ISRAEL
SOURCE: JOURNAL OF MACROMOLECULAR SCIENCE-PURE AND APPLIED CHEMISTRY, (1992) Vol. 29, No. 10, pp. 841-851.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: PHYS
LANGUAGE: ENGLISH
REFERENCE COUNT: 15
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB **Hydrogels** have been prepared from 2-hydroxyethyl methacrylate polymerized in the presence of isocyanate-terminated poly(ethylene glycol) (**PEG**) crosslinking agents. **PEGs** of molecular weights

200, 400, and 1000 were investigated. The crosslinked nature of the **hydrogels** was demonstrated by their insolubility in solvents which normally dissolve poly(HEMA). Hexamethylene **diisocyanate** (HDI) was mainly used as the isocyanate. The molecular weight of the **PEG** and the crosslinker content significantly influenced the equilibrium water sorption and mechanical properties of the saturated networks. It was observed that as the molecular weight of the **PEG** increased, the water sorption increased and the nominal modulus decreased. However, for higher levels of crosslinker, water sorption decreased and modulus increased at low molecular weight **PEG**; for **PEG** 1000, water absorption increased as crosslinker content increased. These results are explained by the competing effects of flexibility, crosslink density, and hydrophobicity contributed by the various constituents of the **hydrogels**.

L6 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:578257 HCAPLUS
DOCUMENT NUMBER: 117:178257
TITLE: Poly(urethane)-crosslinked poly(HEMA) **hydrogels**
AUTHOR(S): Cohn, Daniel; Aronhime, Marc; Abdo, Bashir
CORPORATE SOURCE: Casali Inst. Appl. Chem., Hebrew Univ., Jerusalem, 91904, Israel
SOURCE: Journal of Macromolecular Science, Pure and Applied Chemistry (1992), A29(10), 841-51
CODEN: JSPCE6; ISSN: 1060-1325
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Hydrogels** were prepd. from 2-hydroxyethyl methacrylate (HEMA) polymd. in the presence of isocyanate-terminated poly(ethylene glycol) (**PEG**) crosslinking agents. **PEGs** of mol. wts. 200, 400, and 1000 were investigated. The crosslinked nature of the **hydrogels** was demonstrated by their insoly. in solvents which normally dissolve poly(HEMA). Hexamethylene **diisocyanate** (HDI) was mainly used as the isocyanate. The mol. wt. of the **PEG** and the crosslinker content significantly influenced the equil. water sorption and mech. properties of the satd. networks. As the mol. wt. of the **PEG** increased, the water sorption increased and the nominal modulus decreased. However, for higher levels of crosslinker, water sorption decreased and modulus increased at low mol. wt. **PEG**; for **PEG** 1000, water absorption increased as crosslinker content increased. These results are explained by the competing effects of flexibility, crosslink d., and hydrophobicity contributed by the various constituents of the **hydrogels**.

L6 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:253276 HCAPLUS
DOCUMENT NUMBER: 120:253276
TITLE: Clear nonionic polyurethane **hydrogels** for biomedical applications
AUTHOR(S): Haschke, E.; Sendijarevic, V.; Wong, S.; Frisch, K. C.; Hill, G.
CORPORATE SOURCE: Univ. Detroit Mercy, Polym. Technol., Inc., Detroit, MI, 48219, USA
SOURCE: Proceedings of the SPI Annual Technical/Marketing Conference (1992), 34th(Polyurethanes 92), 94-101
CODEN: PSACEV; ISSN: 0740-8897
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Clear nonionic polyurethane **hydrogels** having a broad range of mech. properties and degrees of swelling were prepd. by both bulk (compression molding) and soln. polymn. processes. **Hydrogels**

contg. 70% water were also prepd. which had an elongation of 1150% and a tensile strength of 280 kPa. The effects of the chem. structure, mol. wt., and functionality of polyether polyols and type of **diisocyanate** on **hydrogel** properties were studied. In addn., the type and concn. of crosslinker, and concn. of ethylene glycol, which was used as chain extender were investigated. In order to achieve transparency in the **hydrogels**, it was detd. that poly(oxypropylene) glycols (PPGs) should be present in the system to disrupt the crystallinity of the poly(oxyethylene) glycol (**PEG**) soft segments. The **PEG** segments are responsible for the absorption of water. However, in addn. to the concn. of oxyethylene units, the degree of swelling of the **hydrogels** is also detd. by the elasticity of the polymer network. The elasticity of the polymer network is detd. by the mol. wt. between crosslinks (crosslink d.) and the concn. of hard segments in the network. The concn. of hard segments was controlled by the concn. of chain extender. The crosslink d. was controlled by the diol/triol ratio and the resp. mol. wt. of each component.

L6 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:607849 HCAPLUS
DOCUMENT NUMBER: 113:207849
TITLE: **Hydrogel** dye film sensing elements and their preparation
INVENTOR(S): Boesterling, Bernhard J.; Chang, Daniel M.; Madonik, Alex M.; Stone, Robert T.
PATENT ASSIGNEE(S): Nellcor, Inc., USA
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9000572	A1	19900125	WO 1989-US3015	19890710
W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 8939653	A1	19900205	AU 1989-39653	19890710
EP 406334	A1	19910109	EP 1989-908107	19890710
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				

PRIORITY APPLN. INFO.: US 1988-217413 19880711
WO 1989-US3015 19890710
OTHER SOURCE(S): MARPAT 113:207849
AB Reactive azo dyes R2N:NR3R4 or R4R2N:NR3 [R2 = (un)substituted Ph or naphthyl or C2-12 heterocyclyl arom. radical; R3 = sulfonated naphthol or aminonaphthol; R4 is a reactive substituent capable of binding the dye mol. to a polymeric substrate without affecting the pH-indicating character of the dye] are prepd. The dyes have a pKa of 6-8 and exhibit visible light absorbance that reversibly shifts as a function of pH. Also prepd. are **hydrogels** and dye films incorporating the dyes and **hydrogels**. Sensing elements incorporating the dye films are described. The sensing elements are useful e.g. in body fluid analyzers for detn. of pH or pCO2 in e.g. blood. Thus, the diazonium salt of 2-bromo-4,6-dinitroaniline was reacted with Na 4-(2-bromoacrylamido)-5-hydroxynaphthalenesulfonate (prepn. given), and the product was further reacted with Tris to form a reactive dye which was used, along with polyurethane **hydrogel**, to prep. a dye film. A multilayer sensing element incorporating the dye films of the invention is described,

as is a body-fluid anal. app. for its use.

L6 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:632716 HCAPLUS
DOCUMENT NUMBER: 113:232716
TITLE: Vinylic macromers containing perfluoropolyalkyl ether and polyalkyl ether segments, polymers and ophthalmic devices made therefrom
INVENTOR(S): Goldenberg, Merrill
PATENT ASSIGNEE(S): Ciba-Geigy Corp., USA
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4933408	A	19900612	US 1989-296170	19890111
EP 379462	A2	19900725	EP 1990-810002	19900104
EP 379462	A3	19911023		
EP 379462	B1	19950222		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
ES 2068373	T3	19950416	ES 1990-810002	19900104
CA 2007352	AA	19900711	CA 1990-2007352	19900109
AU 9047887	A1	19900719	AU 1990-47887	19900111
AU 630652	B2	19921105		
JP 02258834	A2	19901019	JP 1990-4405	19900111
JP 3059183	B2	20000704		
US 4994504	A	19910219	US 1990-500435	19900328
US 5075106	A	19911224	US 1990-622890	19901205

PRIORITY APPLN. INFO.: US 1989-296169 A 19890111
US 1989-296170 A 19890111
US 1990-500435 A3 19900328

AB Title macromers that provide transparent polymers with good wettability, O permeability, and strength for ophthalmic devices are manufd. by reaction of highly fluorinated polyalkylene glycols with **diisocyanates**, reaction of the resulting NCO group-terminated products with polyalkylene glycols or amine-terminated polyalkylene glycols, and reaction of the resulting OH group-terminated products with epoxy or NCO group-contg. unsatd. compds. Thus, reacting Fomblin ZDOL2000 (I, HOCH2CF2O(C2F4O)r(CF2O)sCF2CH2OH, r/s .apprx. 0.7) with IPDI in a 1:2 mol ratio, resp., reacting the NCO group-terminated product with **PEG** 1000 in a 1:2 mol ratio, resp., and reacting the resulting OH group-terminated product with isocyanatoethyl methacrylate (II) in a 1:2 mol ratio, resp., gave a macromer, which was photopolymd. in iso-PrOAc in the presence of benzoin Me ether (III), so that the I-IPDI-**PEG** -II-iso-PrOAc-III wt. ratio in the polymn. mixt. was 24.8:5.9:26.8:4.2:38.4:0.05 in sandwich molds and gave a clear **hydrogel**, that exhibited water content 36.7%, better wettability than a 1:99 ethylene glycol dimethacrylate-2-hydroxyethyl methacrylate copolymer, and tensile strength .apprx.14 kg/cm2.

L6 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:36784 HCAPLUS
DOCUMENT NUMBER: 112:36784
TITLE: Hydrophilic polyether-polyurethanes with good strength, their manufacture and use
INVENTOR(S): Gould, Francis E.; Johnston, Christian W.
PATENT ASSIGNEE(S): Tyndale Plains-Hunter Ltd., USA
SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8905319	A1	19890615	WO 1988-US4263	19881130
W: AU, JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8928004	A1	19890705	AU 1989-28004	19881130
EP 400015	A1	19901205	EP 1989-900547	19881130
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 03501496	T2	19910404	JP 1989-500606	19881130
CA 1338678	A1	19961022	CA 1988-584583	19881130
US 5120816	A	19920609	US 1990-561240	19900724
US 5334691	A	19940802	US 1992-872893	19920423

PRIORITY APPLN. INFO.: US 1987-127794 19871202
WO 1988-US4263 19881130
US 1990-561240 19900724

AB Title polyether-polyurethanes, as water-insol. **hydrogels** useful in antidrag coatings, sustained release agents, cannulae, body implants, films, etc., are prepd. from (a) a diol selected from (1) a long-chain polyoxyethylene glycol with mol. wt. .gtoreq.2500, and (2) a medium-chain polyoxyalkylene glycol or polyester glycol with mol. wt. 250-2500, (b) a chain extender with mol. wt. .ltoreq.250, (c) water, and (d) and org. **diisocyanate** in such a way that the molar ratios of (1)/(b) is 0.4-0.5 when c/b = 15-8.0:1; (2)/(b) is 0.1-0.75:1 when c/b = 0.05-0.3; (1)/b is 0.06-0.04:1, and (2)/(b) is 0.1-0.2:1 while (c)/(b) = 0.25-1.25:1; the NCO:OH ratio is 0.85-1.1:1; and the amt. of water in the reaction mixt. is 0.5-2.5%. A polyether-urethane prepd. from Carbowax 1450 (**PEG**) 53.616, diethylene glycol 5.851, Desmodur W 39.456, and water 1.077 parts in the presence of tin catalyst had hydration 49.7%, expansion on hydration 29.5%, Shore A hardness when dry and 78.4 and when wet 77.4, tensile strength 3431 (dry) and 1150 (wet) psi, tensile 100% secant modulus 423 (dry) and 503 (wet) psi, elongation 488 (dry) and 273 (wet)%, and tear strength 183 (dry) and 43 (wet) lb/in; vs. 63.2, 28.3, 75.8, 20.0, 246, 161, no data, 156, 2, 110, 65, and 12, resp., for a similar product prepd. in the absence of water.

L6 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:576158 HCAPLUS
DOCUMENT NUMBER: 109:176158
TITLE: Morphology of poly(ethylene oxide)-based **hydrogels** in relation to controlled drug delivery
AUTHOR(S): Graham, N. B.; McNeill, M. E.
CORPORATE SOURCE: Dep. Pure Appl. Chem., Univ. Strathclyde, Glasgow, G1 1XL, UK
SOURCE: Makromolekulare Chemie, Macromolecular Symposia (1988), 19, 255-73
CODEN: MCMSES; ISSN: 0258-0322
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The crystallinity, morphol. and water swelling of a series of **hydrogels** based on poly(ethylene glycol)s (**PEG**), (mol. wt. 1610-8490) crosslinked by 1,2,6-hexanetriol and the stoichiometric equivalence of dicyclohexylmethane 4,4'-**diisocyanate** as coreactant to form an infinite urethane-linked network were examd. The equil. water uptake was directly related to the ethylene oxide content irresp. of either mol. wt. or the degree of crosslinking. Crystallinity

affects the rate of swelling in water. Caffeine was incorporated into slices of **hydrogels** over a wide range of compns. and water contents by swelling with a soln. of the drug. After drying then reswelling to desorb the caffeine the release profiles were drawn, and morphol. factors contributing to the bolus and period of zero-order release are discussed.

L6 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1986:115993 HCAPLUS
DOCUMENT NUMBER: 104:115993
TITLE: In vitro release characteristics and long term stability of poly(ethylene oxide) **hydrogel** vaginal pessaries containing prostaglandin E2
AUTHOR(S): Embrey, M. P.; Graham, N. B.; McNeill, M. E.; Hillier, K.
CORPORATE SOURCE: Nuffield Dep. Gynaecol., John Radcliffe Hosp., Headington/Oxford, 0X3 9DU, UK
SOURCE: Journal of Controlled Release (1986), 3(1), 39-45
CODEN: JCREEC; ISSN: 0168-3659
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A crosslinked polymer was prepd. from **PEG** 8490, 1,2,6-hexanetriol and dicyclohexylmethane 4,4'-**diisocyanate** and the biocompatibility of the resulting polyurethane **hydrogels** was demonstrated. Prostaglandin E2 (I) [363-24-6] was incorporated into the samples by swelling them in a 1:1 CHCl3-EtOH soln. of I. In addn. to the above vaginal pessaries, identical pessaries were prepd. contg. trace amts. of radioactive I and I for in vitro release studies. The almost const. release rate from an initially dry pessary for the 1st 50% contrasted markedly with I release from a fully swollen pessary which is typically Fickian diffusion. Many factors such as the mol. wt. of **PEG** used in prepg. the **hydrogel**, crystallinity, degree of crosslinking, device geometry and the drug soly. affected the diffusion both within the gel and across the gel/water boundary. Radioimmunoassay showed that I was stable for >12 mo at 4.degree. when incorporated in the pessaries.

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(FILE 'HOME' ENTERED AT 14:10:41 ON 12 MAY 2003)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 14:11:03 ON 12 MAY 2003

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L1        52666 S DIISOCYANATE
L2        71695 S "PEG"
L3          486 S L1 AND L2
L4        34024 S HYDROGEL?
L5           34 S L3 AND L4
L6           25 DUP REM L5 (9 DUPLICATES REMOVED)
L7       141828 S DISMUTASE?
L8            0 S L6 AND L7
L9            3 S POPRPHYRIN?
L10           0 S L6 AND L9
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=> e ettner n/au

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E1            1     ETTNER H U F/AU
E2            1     ETTNER I/AU
E3           26 --> ETTNER N/AU
E4           20     ETTNER NORBERT/AU
E5            4     ETTNER S/AU
E6          102     ETTNER S L/AU
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E7            1      ETTNER SARA L/AU
E8           12      ETTNER SUSAN L/AU
E9            1      ETTNER SUSAN LOUISE/AU
E10          12      ETTNER U/AU
E11           3      ETTNER URSULA/AU
E12           1      ETTNGER B/AU

=> s e3
L11          26 "ETTNER N"/AU

=> s l3 and l11
L12           0 L3 AND L11

=> e schink m/au
E1            3      SCHINK KARL/AU
E2            2      SCHINK L/AU
E3           37 --> SCHINK M/AU
E4            1      SCHINK M J/AU
E5           10      SCHINK M M/AU
E6            3      SCHINK MAGDOLNA/AU
E7            1      SCHINK MAGDOLNA HORVAY/AU
E8            9      SCHINK MICHAEL/AU
E9            2      SCHINK MYRA/AU
E10           1      SCHINK N/AU
E11          46      SCHINK NORBERT/AU
E12           7      SCHINK NORBERT F/AU

=> s e3
L13          37 "SCHINK M"/AU

=> s l3 and l13
L14           0 L3 AND L13

=> e schreiber j/au
E1            2      SCHREIBER IRIS/AU
E2            2      SCHREIBER IRMELA/AU
E3          903 --> SCHREIBER J/AU
E4            6      SCHREIBER J A/AU
E5           37      SCHREIBER J B/AU
E6            9      SCHREIBER J C/AU
E7          140      SCHREIBER J D/AU
E8            8      SCHREIBER J E/AU
E9           13      SCHREIBER J F/AU
E10           3      SCHREIBER J F JR/AU
E11          18      SCHREIBER J G/AU
E12          60      SCHREIBER J H/AU

=> s e3
L15         903 "SCHREIBER J"/AU

=> s l3 and l15
L16           0 L3 AND L15

=> e Meier w/au
E1            4      MEIER VOLKER K/AU
E2            1      MEIER VOLKER VM/AU
E3         1293 --> MEIER W/AU
E4           49      MEIER W A/AU
E5            1      MEIER W B/AU
E6            3      MEIER W D/AU
E7           83      MEIER W E/AU
E8            1      MEIER W G/AU
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E9            2     MEIER W H/AU
E10           1     MEIER W H D/AU
E11           3     MEIER W J/AU
E12           3     MEIER W JEFF/AU

=> s e3
L17       1293 "MEIER W"/AU

=> s l3 and l17
L18           0 L3 AND L17

=> e sauer m/au
E1            2     SAUER LOUIS W/AU
E2            2     SAUER LUDWIG/AU
E3          618 --> SAUER M/AU
E4           34     SAUER M A/AU
E5            1     SAUER M B/AU
E6          100     SAUER M C/AU
E7           29     SAUER M C JR/AU
E8            6     SAUER M C V/AU
E9            6     SAUER M E/AU
E10           1     SAUER M F/AU
E11           1     SAUER M H M/AU
E12         222     SAUER M J/AU

=> s e3
L19         618 "SAUER M"/AU

=> s l3  and l19
L20           0 L3 AND L19

=> d his

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L11           26 S E3
L12            0 S L3 AND L11
                 E SCHINK M/AU
L13           37 S E3
L14            0 S L3 AND L13
                 E SCHREIBER J/AU
L15          903 S E3
L16            0 S L3 AND L15
                 E MEIER W/AU
L17         1293 S E3
L18            0 S L3 AND L17
                 E SAUER M/AU
L19          618 S E3
L20            0 S L3   AND L19
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